

**In the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A centrifuging reaction vessel assembly for asymmetric heating and cooling of the reaction mixtures during centrifugation ~~mixing reaction mixtures~~, comprising a rotor means for mixing reaction mixtures ~~asymmetric heating and cooling of the reaction mixtures during centrifugation~~, said rotor means supporting at least one microtitre plate for centrifuging reaction mixtures, said rotor means including at least one fan blade for directing ambient gas into an inner space formed between a base portion and a lid portion of said rotor means which enables gas flow to pass in direct contact ~~heat exchange relationship~~ with said at least one microtitre plate.

2. (Previously Presented) The assembly of claim 1, further comprising at least one gas conducting passage is arranged in said rotor means for allowing the ambient gas to pass the reaction mixtures.

3. (Currently Amended) The assembly of claim 1, wherein ~~said rotor means further includes a~~ said base portion and ~~[[a]]~~ said lid portion, ~~defining an~~ define said inner space there between and in which said at least one fan blade is arranged.

4. (Previously Presented) The assembly of claim 1, wherein a lower region of said rotor means is provided with at least one through hole throughwhich the ambient gas can be drawn.

5. (Previously Presented) The assembly of claim 1 wherein an upper region of said rotor means is provided with at least one through hole throughwhich the ambient gas is let out.

6. (Previously Presented) The assembly of claim 3, wherein said at least one fan blade is arranged at an inside of said base portion of said rotor means.

7. (Currently Amended) The assembly of claim 3, wherein said at least one fan blade is arranged at a bottom of said lid portion at a side which faces ~~[[an]]~~ said inner space formed between said base portion and said lid portion of said rotor means.

8. (Previously Presented) The assembly of claim 2, wherein said at least one gas conducting passage is arranged to conduct the ambient gas between reaction mixture-containing wells of said at least one microtitre plate.

9. (Previously Presented) The assembly of claim 1 further comprising a plate arranged to support said at least one microtitre plate.

10. (Previously Presented) The assembly of claim 9 wherein said plate has indentations corresponding to apices of reaction mixture-containing wells of said microtitre plate.

11. (Previously Presented) The assembly of claim 1, wherein the ambient gas is ambient air.

12. (Previously Presented) The assembly of claim 1, further comprising a cooling means for cooling the ambient gas being directed into said rotor means by said at least one fan blade.

13. (Cancelled)

14. (Currently Amended) A centrifuging reaction vessel assembly for asymmetric heating and cooling of the reaction mixtures during centrifugation ~~mixing reaction mixtures,~~ comprising: a rotor means for mixing reaction mixtures ~~asymmetric heating and cooling of the reaction mixtures during centrifugation,~~ and said rotor means supporting a plurality of microtitre plates for centrifuging reaction mixtures, said rotor means including at least one fan blade for directing ambient gas into an inner space formed between a base portion and a lid portion of said rotor means which enables gas flow to pass in direct contact ~~heat exchange relationship~~ with said plurality of microtitre plates.